## REMARKS/ARGUMENTS

**1. Rejection of claims 1-3, 5, 7-10, 12, 14, 15:**

**Response:**

*Claim 1:*

Claim 1 has been amended to overcome this rejection. Specifically, the limitations "each sub-circuit cell comprises a transmission terminal" and "each sub-circuit block comprises at least two N-type MOS transistors or P-type MOS transistors which have doped regions with different areas" have been added to claim 1. These limitations find support in paragraphs [0024], [0026], and Figs. 3-4 for instance, and no new matter is introduced. Acceptance of the amendment is politely requested.

First of all, the amended claim 1 includes the limitation " each sub-circuit cell comprises a transmission terminal". Regarding US 5,858,817, Bansal fails to teach that each sub-circuit cell comprises a transmission terminal, which is configured to electrically connected the sub-circuit cell with a particular function implemented by programming the layout of the connection layer to a kernel circuit.

Secondly, the amended claim 1 teaches the limitation "each sub-circuit block comprises at least two N-type MOS transistors or P-type MOS transistors which have **doped regions with different areas.**" By connecting these transistors with different size of doped regions with the connection layer, different and desired I/O functions can be implemented for the sub-circuit cells. On the other hand, Bansal teaches electrically connecting same types of logic cells in different way to form different logic elements such as inverter, NAND, AND, etc. as disclosed in col. 3, lines 21-25. Bansal fails to teach or suggest these logic cells have different doped regions as claim 1 does.

Based on the above traversals, the amended claim 1 is patentably distinct from Bansal's teaching, and should be allowed. Reconsideration of claim 1 is respectfully

requested.

*Claims 2-3, 5, 7-8:*

Claims 2-3, 5 and 7-8 are dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claims 2-3, 5 and 7-8 is politely requested.

*Claim 9:*

Claim 9 has been amended to overcome this rejection. Specifically, the limitations "each sub-circuit cell comprises a transmission terminal" and "each sub-circuit block comprises at least two N-type MOS transistors or P-type MOS transistors which have doped regions with different areas" have been added to claim 9. These limitations find support in paragraphs [0024], [0026], and Figs. 3-4 for instance, and no new matter is introduced. Acceptance of the amendment is politely requested.

First of all, the amended claim 9 includes the limitation "each sub-circuit cell comprises a transmission terminal". Regarding US 5,858,817, Bansal fails to teach that each sub-circuit cell comprises a transmission terminal, which is configured to electrically connected the sub-circuit cell with a particular function implemented by programming the layout of the connection layer to a kernel circuit.

Secondly, the amended claim 9 teaches the limitation "each sub-circuit block comprises at least two N-type MOS transistors or P-type MOS transistors which have **doped regions with different areas**." By connecting these transistors with different size of doped regions with the connection layer, different and desired I/O functions can be implemented for the sub-circuit cells. On the other hand, Bansal teaches electrically connecting same types of logic cells in different way to form different logic elements such as inverter, NAND, AND, etc. as disclosed in col. 3, lines 21-25. Bansal fails to teach or suggest these logic cells have different doped regions as claim 9 does.

Based on the above traversals, the amended claim 9 is patentably distinct from Bansal's teaching, and should be allowed. Reconsideration of claim 9 is respectfully requested.

*Claims 10, 12, 14-15:*

Claims 10, 12 and 14-15 are dependent on claim 9, and should be allowed if claim 9 is found allowable. Reconsideration of claims 10, 12 and 14-15 is politely requested.

**2. Rejection of claims 6 and 13 under 35 U.S.C. 103(a) as being unpatentable over Bansal and further in view of Maeda (US 6,052,014):**

**Response:**

*Claim6:*

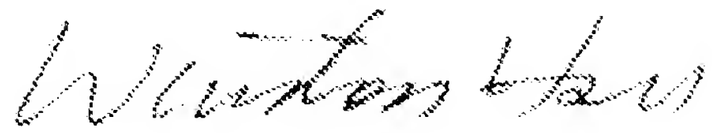
Claim 6 is dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claim 6 is politely requested.

*Claim 13:*

Claim 13 is dependent on claim 9, and should be allowed if claim 9 is found allowable. Reconsideration of claim 13 is politely requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,



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Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)